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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/610,966	07/01/2003	Oleg Kiselev	VRT0061US	1460
33031	7590	10/17/2005	EXAMINER	
CAMPBELL STEPHENSON ASCOLESE, LLP 4807 SPICEWOOD SPRINGS RD. BLDG. 4, SUITE 201 AUSTIN, TX 78759			BRADLEY, MATTHEW A	
			ART UNIT	PAPER NUMBER
			2187	

DATE MAILED: 10/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/610,966	Applicant(s) KISELEV ET AL.	
	Examiner Matthew Bradley	Art Unit 2187	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 7/1/2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

Applicant's arguments, see Amendment – After Non-Final Rejection, filed 30 September 2005, with respect to the rejection(s) of claim(s) 1-5, 11-15, 21, and 22, under 35 U.S.C. 102 (a), 35 U.S.C. 102 (e), and with respect to the rejection(s) of claim(s) 6-10, and 16-20, under 35 U.S.C. 103 (a), have been fully considered and are persuasive. Therefore, the rejection(s) have been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Archibald, Jr. et al. (U.S. 6,928,578). As such, this action has **NOT** been made final.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1-22 are rejected under 35 U.S.C. 102(a) as being anticipated by Archibald, Jr. et al. (U.S. 6,928,578).

As per independent claim 1, Archibald, Jr. et al. (herein after referred to as Archibald) teach,

- receiving a request to read data, wherein the request is received from a computer system in data communication with the RAID data storage system; (Column 7 lines 39-44)

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- reading first parity data corresponding to the first stripe unit data in response to receiving the request; (Column 7 lines 39-44).
- generating new first parity data corresponding to the first stripe unit data, wherein the new first parity data is generated as a function of the first stripe unit data; (Column 7 lines 44-47)
- comparing the first parity data with the new first parity data; (Column 7 lines 47-49)
- returning data of the first stripe unit to the computer system if the first parity data compares equally to the new first parity data. (Column 7 lines 39-44).

As per dependent claim 2, Archibald teach, “wherein the RAID data storage system comprises a parity RAID data storage system” (Column 6 lines 16-20).

As per dependent claim 3, Archibald teach, “wherein the parity RAID data storage system comprises a RAID-5 data storage system” (Column 5 lines 32-35).

As per dependent claim 4, Archibald teach, “wherein the new first parity data is generated only as a function of first stripe unit data” (Column 7 lines 44-47).

As per dependent claim 5, Archibald teach,

- if the first parity data does not compare equally to the new first parity data reading stripe parity P, wherein stripe parity P corresponds to the plurality of stripe units; (Column 8 lines 1-2)

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- generating new first stripe unit data as a function of stripe parity P and data of the plurality of stripe units other than the first stripe unit; (Column 8 lines 4-6)
- generating another new first parity data corresponding to the first stripe unit data, wherein the another new first parity data is generated as a function of the new first stripe unit data; (Column 8 lines 1-15)
- comparing the new first parity data with the another new first parity data. (Column 8 lines 1-15).

As per dependent claim 6, Archibald teach, “further comprising overwriting data of the first stripe unit with the new first stripe unit data if the new first parity data compares equally with the another new first parity data” (Column 9 lines 31-35).

As per dependent claim 7, Archibald teach, “further comprising returning the new first stripe unit data to the computer system if the new first parity data compares equally with the another new first parity data” (Column 7 lines 39-44).

As per dependent claim 8, Archibald teach, “further comprising comparing the first stripe unit data to the new first stripe unit data if the new first parity data does not compare equally with the another new first parity data” (Column 9 lines 2-9).

As per dependent claim 9, Archibald teach, “further comprising returning an error message to the computer system if the first stripe unit data does not compare equally to the new first stripe unit data” (Column 8 line 66 to Column 9 line 2).

As per dependent claim 10, Archibald teach, "further comprising overwriting the first parity data with the new first parity data if the new first stripe unit data compares equally to the first stripe unit data" (Column 9 lines 31-35).

As per independent claim 11, the Examiner notes that the only distinguishable difference between claim 1 and the instant claim, is the instant claim's limitation of computer readable medium which is taught by Archibald in Column 5 lines 47-53. Claim 11 is therefore rejected on the same grounds as claim 1.

As per dependent claim 12, the Examiner notes that the only distinguishable difference between claim 2 and the instant claim, is the instant claim's limitation of computer readable medium which is taught by Archibald in Column 5 lines 47-53. Claim 12 is therefore rejected on the same grounds as claim 2.

As per independent claim 13, the Examiner notes that the only distinguishable difference between claim 3 and the instant claim, is the instant claim's limitation of computer readable medium which is taught by Archibald in Column 5 lines 47-53. Claim 13 is therefore rejected on the same grounds as claim 3.

As per independent claim 14, the Examiner notes that the only distinguishable difference between claim 4 and the instant claim, is the instant claim's limitation of computer readable medium which is taught by Archibald in Column 5 lines 47-53. Claim 14 is therefore rejected on the same grounds as claim 4.

As per independent claim 15, the Examiner notes that the only distinguishable difference between claim 5 and the instant claim, is the instant claim's limitation of

computer readable medium which is taught by Archibald in Column 5 lines 47-53.

Claim 15 is therefore rejected on the same grounds as claim 5.

As per independent claim 16, the Examiner notes that the only distinguishable difference between claim 6 and the instant claim, is the instant claim's limitation of computer readable medium which is taught by Archibald in Column 5 lines 47-53.

Claim 16 is therefore rejected on the same grounds as claim 6.

As per independent claim 17, the Examiner notes that the only distinguishable difference between claim 7 and the instant claim, is the instant claim's limitation of computer readable medium which is taught by Archibald in Column 5 lines 47-53.

Claim 17 is therefore rejected on the same grounds as claim 7.

As per independent claim 18, the Examiner notes that the only distinguishable difference between claim 8 and the instant claim, is the instant claim's limitation of computer readable medium which is taught by Archibald in Column 5 lines 47-53.

Claim 18 is therefore rejected on the same grounds as claim 8.

As per independent claim 19, the Examiner notes that the only distinguishable difference between claim 9 and the instant claim, is the instant claim's limitation of computer readable medium which is taught by Archibald in Column 5 lines 47-53.

Claim 19 is therefore rejected on the same grounds as claim 9.

As per independent claim 20, the Examiner notes that the only distinguishable difference between claim 10 and the instant claim, is the instant claim's limitation of computer readable medium which is taught by Archibald in Column 5 lines 47-53.

Claim 20 is therefore rejected on the same grounds as claim 10.

As per independent claim 21, Archibald teach,

- a first computer system for receiving a request to read data, wherein the request is received from a (Column 5 lines 31-44). *The Examiner notes that the Controller (106) taught by Archibald is the first computer as claimed instantly.*
- second computer system in data communication with the first computer system, (Column 5 lines 17-22). *The Examiner notes that Computer (102) taught by Archibald is the second computer system as claimed instantly.*
- wherein the first computer system comprises a computer readable medium that stores instructions executable by the first computer system, wherein the first computer system performs a method in response to executing the stored instructions, the method comprising; (Column 5 lines 47-53)
- reading first parity data corresponding to the first stripe unit data in response to the first computer receiving the request; (Column 7 lines 39-44).
- generating new first parity data corresponding to the first stripe unit data, wherein the new first parity data is generated as a function of the first stripe unit data; (Column 7 lines 44-47)
- comparing the first parity data with the new first parity data; (Column 7 lines 47-49)

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- o returning data of the first stripe unit to the second computer system if the first parity data compares equally to the new first parity data. (Column 7 lines 39-44).

Claim 22 is interpreted under 35 U.S.C. 112, 6th paragraph.

The Court of Appeals for the Federal Circuit, in its en banc decision *In re Donaldson Co.*, 16 F.3d 1189, 29 USPQ2d 1845 (Fed. Cir. 1994), decided that a "means-or-step-plus-function" limitation should be interpreted in a manner different than patent examining practice had previously dictated. The Donaldson decision affects only the manner in which the scope of a "means or step plus function" limitation in accordance with 35 U.S.C. 112, sixth paragraph, is interpreted during examination. Donaldson does not directly affect the manner in which any other section of the patent statutes is interpreted or applied.

When making a determination of patentability under 35 U.S.C. 102 or 103, past practice was to interpret a "means or step plus function" limitation by giving it the "broadest reasonable interpretation." Under the PTO's long-standing practice this meant interpreting such a limitation as reading on any prior art means or step which performed the function specified in the claim without regard for whether the prior art means or step was equivalent to the corresponding structure, material or acts described in the specification. However, in Donaldson, the Federal Circuit stated:

Per our holding, the "broadest reasonable interpretation" that an examiner may give means-plus-function language is that statutorily mandated in paragraph six. Accordingly, the PTO may not disregard the structure disclosed in the specification corresponding to such language when rendering a patentability determination. (MPEP 2181)

Accordingly, the Examiner notes that the means or system/structure for practice of the invention disclosed in paragraph 19 of applicant's specification is further taught in Archibald in Figure 1 which is further discussed in Column 5 lines 14-44. Additionally, Independent claim 22 contains no distinguishable subject matter between claim 1 except for drawing a "means-or-step-plus-function" interpretation as discussed supra and is therefore rejected on the same grounds as claim 1.

Response to Arguments

Applicant's arguments filed 30 September 2005 have been carefully and fully considered and are persuasive. Applicant's arguments are moot in light of the new

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grounds of rejection not necessitated by amendment. Accordingly, this action has **NOT** been made final.

Any objections or rejections present in the Office Action dated 28 July 2005 not specifically addressed in the rejection supra have been withdrawn.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew Bradley whose telephone number is (571) 272-8575. The examiner can normally be reached on 6:30-3:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald A. Sparks can be reached on (571) 272-4201. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CPC/mb



**CHRISTIAN CHACE
PRIMARY EXAMINER**